

S/N 09/751,955



PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant:	Pamela A. Binns	Examiner:	Nilesh Shah
Serial No.:	09/751,955	Group Art Unit:	2127
Filed:	December 29, 2000	Docket No:	H25538.58042
Title:	METHODS AND APPARATUS FOR SLACK STEALING WITH DYNAMIC THREADS		

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**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

The applicant requests review of the final rejection in the above-identified application.  
No amendments are being filed with this request.

This request is being filed with a Notice of Appeal.

The review is requested for the reason(s) stated below:

**Remarks**

**§102 Rejection of the Claims**

Claims 1-38 were rejected under 35 U.S.C. § 102(b) as being anticipated by Lehoczhy et al. ("Scheduling periodic and aperiodic tasks using the slack stealing algorithm"). This rejection is respectfully traversed, as the reference does not show each and every element of the invention as claimed.

Applicant submits that there is clear error in the rejection of claims 1-38, as Lehoczhy et al. ("Scheduling periodic and aperiodic tasks using the slack stealing algorithm") does not disclose each and every element of the claims.

The element not shown in the reference is: “determining available slack for tasks at each priority level, **taking into account tasks that are activating and inactivating;**”. The examiner appears to indicate that the reference describes taking into account activating and inactivating tasks by virtue of their use of the word "inactivity" in the table and text on pages 178-179. However, it is clear from the reference that it is referring to processor inactivity, and not inactivating tasks. Thus, the reference fails to teach or suggest the element, and the rejection should be withdrawn.

Further text in the reference is cited in the Final Office Action: (page 178, section 8.3; table 8.2; page 179, section 8.3.1 lines 25-40; page 183, section 8.3.2 lines 37-40);” These citations have been reviewed in detail, and do not disclose the bold part of the claim language.

Applicant now describes what each of these sections of the reference describes, and why it does not describe the claim language in bold above.

Page 178, section 8.3; table 8.2: This language describes the pre-computation of slack values and stores them in table 8.2. There is no discussion of activation and inactivation of tasks. In fact, by pre-computing values, it appears than an assumption is made that the tasks will not inactivate. If tasks did inactivate, the pre-computed values would have to be changed, and there is no discussion of changing the values due to tasks inactivating.

Page 179, section 8.3.1 lines 25-40: This language describes a work function to give the completion time of required work. There is no discussion of activation and inactivation of tasks. The words or concepts related to activation and inactivation are not found in this cited text. page 183, section 8.3.2 lines 37-40): This language describes the need to schedule a hard aperiodic task when it arrives at an empty aperiodic queue. There is no discussion of activation and inactivation of tasks. The words or concepts related to activation and inactivation are not

found in this cited text.

The general work of Lehoczky et al., of which the cited reference is an example, was referenced in the background section of the present application. It is characterized as being “limited to only a static set of execution threads, i.e. a fixed set of recurring tasks without any new periodic tasks being activated and without any periodic tasks being deactivated.”

Each of the independent claims contain elements referencing activation and inactivation of tasks. The Office Actions, until the Advisory Action, did not indicate where the references describe this aspect of the claims. A review by Applicant fails to find any mention of such activation and deactivation of tasks. Since at least one element of the claimed invention is lacking in the reference, a proper prima facie case of anticipation has not been established and the rejection should be withdrawn. The dependent claims distinguish the reference for at least the same reasons.

Claim 1 includes: “determining available slack for tasks at each priority level, taking into account tasks that are activating and inactivating;”.

Claim 10 includes: “determining available slack for tasks at each priority level, taking into account tasks that are activating and inactivating;”.

Claim 20 includes: “determining available slack for tasks, taking into account tasks that are activating and inactivating;”.

Claim 21 includes: “a first module that is to determine available slack, taking into account aperiodic tasks that are requesting activation and deactivation at unpredictable times; and”.

Claim 29 recites: “determining available slack for processes at each priority level, taking into account processes that are activating and inactivating; and”.

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As can be seen, each independent and thus each dependent claim includes references to activation and inactivation. No such discussion is found in the reference, and in fact, the background of the application specifically refers to the work by the author of the cited reference as not dealing with activation and deactivation. As such, the rejection should be withdrawn.

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Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 373-6972 to facilitate prosecution of this application.

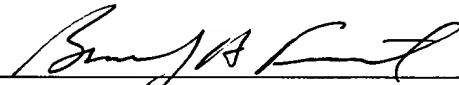
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Respectfully Submitted,

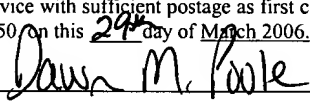
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**CERTIFICATE UNDER 37 CFR § 1.8:** The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelop addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 29<sup>th</sup> day of March 2006.

Name 

Signature 